

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: To Be Assigned

Filing Date: To Be Assigned

Applicant: Kessman, et al.

Group Art Unit: To Be Assigned

Examiner: To Be Assigned

Title: METHOD OF DETECTING ORGAN MATTER SHIFT IN  
A PATIENT

Attorney Docket: 5074A-000009/DVC

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Director of the United States Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

**I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION**

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

**II. COPIES**

A.        Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cited pending U.S. application, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B.   X   Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number  
10/047,927

U.S. Filing Date  
January 14, 2002

C.  Because the present application was/is being filed after June 30, 2003, no copies of the U.S. patents or U.S. patent application publications which are listed on the attached Form 1449 are enclosed pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i). Any foreign patent documents or non-patent literature listed on the attached Form 1449 are enclosed herewith.

D.  This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form-1449 for consideration by the Examiner and for listing on any patent resulting from this application. Since the International Search Report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g))

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A.  Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B.  A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1.  See the attached foreign patent office communication from a counterpart foreign application:
2.  English translations are provided:
3.  Other:

C.  The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A.  The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.

Filing Date

Art Unit

V. THIS IDS IS BEING FILED UNDER

A. X 37 C.F.R. § 1.97(b): (check only one box)

1. X within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.
2. \_\_\_\_ within three months of the date of entry of the national stage as set forth in §1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.
3. \_\_\_\_ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).
4. \_\_\_\_ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. \_\_\_\_ 37 C.F.R. § 1.97(c): (check only one box)

- before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. \_\_\_\_ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).
2. \_\_\_\_ See the certification below. No fee is required.

C. \_\_\_\_ 37 C.F.R. § 1.97(d):

- after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. \_\_\_\_ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A.        each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B.        no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C.        Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 CFR 1.704(d)

The undersigned hereby states that:

       each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

- A.        A check in the amount of \$180.00 is enclosed for the above-identified fee.
- B.        Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

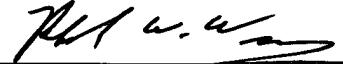
The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

Dated: Sept. 19, 2003

By:   
Richard W. Warner  
Reg. No. 38,043

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600

FORM HDP-1449 (Based on Form PTO-1449)		ATTORNEY DOCKET NO.	SERIAL No.
		5074A-000009/DVC	To Be Assigned
		APPLICANT	
		Kessman, et al.	
		FILING DATE	GROUP
		To Be Assigned	To Be Assigned

**PATENT AND TRADEMARK OFFICE**  
**INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Sheet 1 of 13

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		4,722,056	01/1988	Roberts, et al.		
2.		4,791,934	12/1988	Brunnett		
3.		4,821,731	04/1989	Martinelli, et al.		
4.		4,896,673	01/1990	Mathur, et al.		
5.		4,945,914	08/1990	Allen		
6.		4,991,579	02/1991	Allen		
7.		5,037,374	08/1991	Carol		
8.		5,054,492	10/1991	Scribner, et al.		
9.		5,094,241	03/1992	Allen		
10.		5,097,839	03/1992	Allen		
11.		5,099,846	03/1992	Hardy		
12.		5,119,817	06/1992	Allen		
13.		5,142,930	09/1992	Allen, et al.		
14.		5,150,715	09/1992	Ishiguro, et al.		
15.		5,160,337	11/1992	Cosman		
16.		5,161,536	11/1992	Vilkomerson, et al.		
17.		5,178,164	01/1993	Allen		
18.		5,186,174	02/1993	Schlöndorff, et al.		
19.		5,198,877	03/1993	Schulz		
20.		5,211,164	05/1993	Allen		
21.		5,222,499	06/1993	Allen, et al.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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22.		5,230,338	07/1993	Allen, et al.		
23.		5,230,623	07/1993	Guthrie, et al.		
24.		5,249,581	10/1993	Horbal, et al.		
25.		5,251,127	10/1993	Raab		
26.		5,251,635	10/1993	Dumoulin, et al.		
27.		5,253,647	10/1993	Takahashi, et al.		
28.		5,255,680	10/1993	Darrow, et al.		
29.		5,257,628	11/1993	Ishiguro, et al.		
30.		5,257,998	11/1993	Ota, et al.		
31.		5,261,404	11/1993	Mick, et al.		
32.		5,265,610	11/1993	Darrow, et al.		
33.		5,271,400	12/1993	Dumoolin, et al.		
34.		5,279,309	01/1994	Taylor, et al.		
35.		5,295,483	03/1994	Nowacki, et al.		
36.		5,299,254	03/1994	Dancer, et al.		
37.		5,299,288	03/1994	Glassman, et al.		
38.		5,305,203	04/1994	Raab		
39.		5,309,913	05/1994	Kormos, et al.		
40.		5,318,026	06/1994	Dumoulin, et al.		
41.		5,345,938	09/1994	Nishiki, et al.		

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U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
42.		5,359,417	10/1994	Müller, et al.		
43.		5,371,778	12/1994	Yanof, et al.		
44.		5,377,678	01/1995	Dumoulin, et al.		
45.		5,383,454	01/1995	Bucholz		
46.		5,391,199	02/1995	Ben-Haim		
47.		5,394,875	03/1995	Lewis, et al.		
48.		5,397,329	03/1995	Allen		
49.		5,398,684	03/1995	Hardy		
50.		5,402,801	04/1995	Taylor		
51.		5,413,573	05/1995	Koivukangas		
52.		5,423,334	06/1995	Jordan		
53.		5,443,489	08/1995	Ben-Haim		
54.		5,446,548	08/1995	Gerig, et al.		
55.		5,447,154	09/1995	Cinquini, et al.		
56.		5,480,422	01/1996	Ben-Haim		
57.		5,483,961	01/1996	Kelly, et al.		
58.		5,494,034	02/1996	Schlöndorff, et al.		
59.		5,503,320	04/1996	Webster, et al.		
60.		5,515,160	05/1996	Schulz, et al.		
61.		5,517,990	05/1996	Kalfas, et al.		

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62.		5,531,227	07/1996	Schneider		
63.		5,531,520	07/1996	Grimson, et al.		
64.		5,546,951	08/1996	Ben-Haim		
65.		5,558,091	09/1996	Acker, et al.		
66.		5,569,809	10/1996	Ben-Haim		
67.		5,572,999	11/1996	Funda, et al.		
68.		5,590,215	12/1996	Allen		
69.		5,592,939	01/1997	Martinelli		
70.		5,603,318	02/1997	Heilbrun, et al.		
71.		5,608,849	03/1997	King, Jr.		
72.		5,622,170	04/1997	Schulz		
73.		5,638,819	06/1997	Manwaring, et al.		
74.		5,662,111	09/1997	Cosman		
75.		5,676,673	10/1997	Ferre, et al.		
76.		5,682,890	11/1997	Kormos, et al.		
77.		5,694,945	12/1997	Ben-Haim		
78.		5,695,501	12/1997	Carol, et al.		
79.		5,697,377	12/1997	Wittkampf		
80.		5,715,822	02/1998	Watkins, et al.		
81.		5,718,241	02/1998	Ben-Haim, et al.		

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82.		5,729,129	03/1998	Acker		
83.		5,730,129	03/1998	Darrow, et al.		
84.		5,732,703	03/1998	Kalfas, et al.		
85.		5,738,096	04/1998	Ben-Haim		
86.		5,740,802	04/1998	Nafis, et al.		
87.		5,748,767	05/1998	Raab		
88.		5,752,513	05/1998	Acker, et al.		
89.		RE35,816	06/1998	Schulz		
90.		5,762,064	06/1998	Polvani		
91.		5,765,561	06/1998	Chen, et al.		
92.		5,769,861	06/1998	Vilsmeier		
93.		5,772,594	06/1998	Barrick		
94.		5,776,064	07/1998	Kalfas, et al.		
95.		5,787,866	08/1998	Sugiyama, et al.		
96.		5,787,886	08/1998	Kelly, et al.		
97.		5,797,849	08/1998	Vesely, et al.		
98.		5,829,444	11/1998	Ferre, et al.		
99.		5,833,608	11/1998	Acker		
100.		5,836,954	11/1998	Heilbrun, et al.		
101.		5,840,025	11/1998	Ben-Haim		

Examiner:

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FORM HDP-1449 (Based on Form PTO-1449)

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102.		5,858,967	12/1998	Cosman		
103.		5,851,183	12/1998	Bucholz		
104.		5,871,445	02/1999	Bucholz		
105.		5,871,455	02/1999	Ueno		
106.		5,873,822	02/1999	Ferre, et al.		
107.		5,891,034	04/1999	Bucholz		
108.		5,907,395	05/1999	Schulz, et al.		
109.		5,913,820	06/1999	Bladen, et al.		
110.		5,920,395	07/1999	Schulz		
111.		5,921,992	07/1999	Costales, et al.		
112.		5,947,981	09/1999	Cosman		
113.		5,967,982	10/1999	Barnett		
114.		5,971,997	10/1999	Guthrie, et al.		
115.		5,980,535	11/1999	Barnett, et al.		
116.		5,987,349	11/1999	Schulz		
117.		6,016,439	01/2000	Acker		
118.		6,019,725	02/2000	Vessely, et al.		
119.		6,021,342	02/2000	Brabrand		
120.		6,165,181	12/2000	Heilbrun, et al.		
121.		6,379,302	04/2002	Kessman, et al.		

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**U.S. PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
122.		6,285,902	09/2001	Kienzle, et al.		
123.		6,216,029	04/2001	Paltiel, Yoav		

**FOREIGN PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	Translation No
1.		EP 0 655138 B1	04/1998	EPO			
2.		EP 0 894473 A2	02/1999	EPO			
3.		EP 0 922 438 A1	06/1999	EPO			
4.		WO 94/04938	03/1994	PCT			
5.		WO 96/25881	08/1996	PCT			
6.		WO 97/03609	02/1997	PCT			
7.		WO 99/60939	01/1999	PCT			

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)**

Ref. Desig.	Examiner's Initials	
1.		International Search Report, Apr. 20, 2001.
2.		C. Davatzikos, et al., "Brain Image Registration Based on Curve Mapping," IEEE, 0-8186-5802-9/94 (1994) pp. 245-254.
3.		Stereotactic Image Systems, Inc., "Affordable PC Based Graphics for Stereotactic Surgery," Stereotactic One, Scantec, Inc. undated.

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM HDP-1449 (Based on Form PTO-1449) <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 8 of 13	ATTORNEY DOCKET NO.	SERIAL No.
	5074A-000009/DVC	To Be Assigned
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<b>OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)</b>		
Ref. Desig.	Examiner's Initials	
4.		K. Foley, "The StealthStation™: Three-Dimensional Image-Interactive Guidance for the Spine Surgeon," Spinal Frontiers (Apr. 1996) pp. 7-9.
5.		S. Lavallée, et al., Matching 3-D Smooth Surfaces with their 2-D Projections using 3-D Distance Maps, SPIE, Geometric Methods in Computer Vision, vol. 1570, (Jul. 25-26, 1991) pp. 322-336.
6.		Sulzer Orthopedics Ltd., Product Information, "NAVITRACK™ Computer Assisted Surgery System," SULZERMEDICA, Edition 3/98.
7.		K. Foley, "Image Guided Spine Surgery Utilizing Frameless Stereotaxy," presentation papers (undated).
8.		Product Information on The Laitinen Stereotactic System", . . . opening new doors in stereotaxis," (undated).
9.		D. Norman, et al., "Localization with the EMI Scanner," The American Journal of Roentgenology Radium Therapy and Nuclear Medicine, vol. 125, No. 4, (Dec. 1975) pp. 961-964.
10.		R. Levinthal, "Technique for Accurate Localization with the CT Scanner," Bulletin of the Los Angeles Neurological Societies, vol. 41, No. 1, (Jan. 1976) pp. 6-8.
11.		M. Bergström, et al., "Stereotaxic Computed Tomography," The American Journal of Roentgenology, vol. 127 (1976) pp. 167-170.
12.		R. Penn, et al., "Stereotactic Surgery with Image Processing of Computerized Tomographic Scans," Neurosurgery, vol. 3, No. 2 (1978) pp. 157-163.
13.		F. Mundinger, "Treatment of Small Cerebral Gliomas with CT-Aided Stereotaxic Curietherapy," Neuroradiology, vol. 16, (Dec. 15, 1978) pp. 564-567.
14.		D. O'Leary, "Localization of vertex lesions seen on CT scan," Journal of Neurosurgery, vol. 49, Jul. 1978), pp. 71-74.
15.		R. Brown, "A computerized tomography-computer graphics approach to stereotaxic localization," Jopurnal of Neurosurgery, vol. 50, No. 6, (Jun. 1979), pp. 715-720.
16.		J. Boëthius, "Stereotaxic computerized tomography with a GE 8800 scanner," Journal of Neurosurgery, vol. 52, No. 6, (Jun. 1980) pp. 794-800.

Examiner:	Date Considered:
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FORM HDP-1449 (Based on Form PTO-1449)

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